

## Electrical Systems Competency 4.2

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**Competency 4.2** Electrical systems personnel shall demonstrate the ability to evaluate contractor activities and reports controlled by Department of Energy, DOE Order 5000.3B, Occurrence Reporting and Processing of Operations Information.

### 1. Supporting Knowledge and Skills

- a. Using an occurrence report and using DOE Order 5000.3B, Occurrence Reporting and Processing of Operations Information, as a reference, determine the following:
  - The adequacy of the review process used
  - Whether causes were appropriately defined
  - Whether corrective actions addressed causes
  - Whether the lessons learned were appropriate
  - Whether corrective actions have been completed
- b. Using an occurrence report involving electrical systems activities, identify and discuss the factors contributing to the occurrence.

### 2. Self-Study Activities (corresponding to the intent of the above competency)

Below are two web sites containing many of the references you may need.

Web Sites		
Organization	Site Location	Notes
Department of Energy	<a href="http://wastenot.inel.gov/cted/stdguido.html">http://wastenot.inel.gov/cted/stdguido.html</a>	DOE Standards, Guides, and Orders
U.S. House of Representatives	<a href="http://law.house.gov/cfr.htm">http://law.house.gov/cfr.htm</a>	Searchable Code of Federal Regulations

**Read** DOE Order 5000.3B, *Occurrence Reporting and Processing of Operations Information*.

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**Read** two or more occurrence reports involving facilities at your site. If possible, these should involve electrical system activities as at least a contributing factor.

EXERCISE 4.2-A Using an occurrence report and DOE Order 5000.3B as a reference, determine the following:

- That the review process used was adequate
- Whether causes were appropriately defined
- Whether corrective actions addressed causes
- Whether the lessons learned were appropriate
- Whether corrective actions have been completed

### 3. Summary

DOE Order 5000.3B, *Occurrence Reporting and Processing of Operations Information*, establishes a system for reporting of operations information related to DOE-owned or -operated facilities and processing of that information to provide for appropriate corrective action.

The Order describes the requirements for reporting and processing of occurrences related to the operation of DOE-owned or -operated facilities, including occurrences related to safety, health, security, property, operations, or the environment, up to and including emergencies.

### 4. Exercise Solutions

EXERCISE 4.2-A Using an occurrence report and DOE Order 5000.3B as a reference, determine the following:

- That the review process used was adequate
- Whether causes were appropriately defined
- Whether corrective actions addressed causes
- Whether the lessons learned were appropriate
- Whether corrective actions have been completed

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### ANSWER 4.2-A

Issues	Indicators
Adequacy of the review process	<ul style="list-style-type: none"><li>• Identification and categorization of occurrence were timely.</li><li>• Notification and reporting to DOE management were timely.</li><li>• Significance, root causes, generic implications, and the need for corrective actions were addressed.</li></ul>
Causes were appropriately defined	<ul style="list-style-type: none"><li>• At least one direct cause is identified.</li><li>• No more than three contributing causes are defined.</li><li>• Complete consideration of the cause is provided, including contributory factors, with analysis to show what cause was root to the occurrence and what causes were only contributory.</li><li>• One of the seven allowable categories of causes was identified.</li></ul>
Corrective actions addressed causes	<ul style="list-style-type: none"><li>• The corrective actions are directly related to the causes (direct and contributing) defined.</li></ul>
Lessons learned were appropriate	<ul style="list-style-type: none"><li>• Includes only lessons that others might learn from the occurrence which might be important to other facility operators, or which should be addressed in personnel training or facility procedures.</li><li>• Lessons learned are directly related to the occurrence.</li></ul>
Corrective actions have been completed	<ul style="list-style-type: none"><li>• All actions identified to correct the problem are listed, which completed, will prevent recurrence.</li><li>• Actual or target completion dates are provided for all the corrective actions listed.</li></ul>